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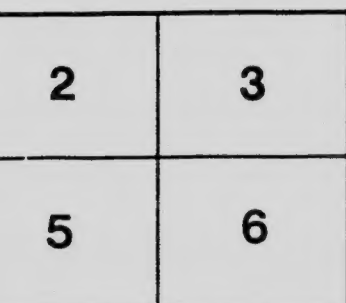
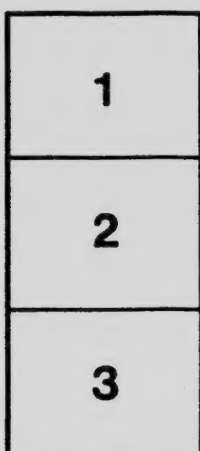
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PROVINCE OF BRITISH COLUMBIA.

DEPARTMENT OF AGRICULTURE
(HORTICULTURAL BRANCH).

RECEIVED

Feb 1

Int. Agr. Inst.

Honey Production in British Columbia
Season of 1916.

By F. DUNDAS TODD, FOUL-BROOD INSPECTOR.

ON the first day of October, 1916, there were listed on the records of the Department of Agriculture the names of 1,315 bee-keepers in the Province. From all of them there was requested a honey-crop report for the season, and 369 responded. Briefly stated, we got the following result:—

Year.	Colonies in April.	Crop.	Average per Hive.
1916	1,920	Lb. 65,671	Lb. 34

Assuming that those reporting are fairly representative bee-keepers, a little calculation will show that the total honey-crop of the Province in 1916 was probably about 117 tons. If we calculate the crop of individual districts on the basis of the figures given, the total arrived at amounts to 126 tons, so we may conclude that the total honey production of the Province in 1916 was around 120 tons, being an increase over 1915 of 20 tons, or 20 per cent.

By districts, the reports are as follows:—

REPORT OF HONEY-CROP BY DISTRICTS FOR 1916.

District.	Bee-keepers on List.	Bee-keepers reporting.	Hives reported.	Crop reported.	Average per Hive.
				Lb.	Lb.
Burnaby	93	36	189	5,907	31
Chilliwack	84	18	120	4,968	39
Coquitlam	5	3	11	350	32
Delta	61	9	94	3,111	33
Dewdney	9	2	8	295	37
Howe Sound	20	6	12	216	17
Pemberton Meadows	3	...	...	...	...
Kent	18	4	10	185	18
Langley	44	15	82	1,720	21
Maple Ridge	14	6	58	1,744	30
Matsqui	20	4	15	450	30
Mission	40	11	34	874	25
Carried forward	420	114	633	19,814	313

REPORT OF HONEY-CROP BY DISTRICTS—Concluded.

District.	Bee-keepers on list.	Bee-keepers reporting.	Hives reported.	Crop reported.	Average per Hive.
				Lb.	Lb.
<i>Brought forward</i>	420	114	633	19,814	313
Nicomen	13	3	9	255	28
North Vancouver	40	18	60	1,174	17
Point Gray	41	11	32	965	30
Richmond	43	11	57	3,270	57
South Vancouver	68	25	133	3,520	18
Sumas	45	3	65	568	9
Surrey	73	18	138	3,037	22
Vancouver	53	20	100	2,997	30
Comox	24	3	9	375	42
Duncan	22	0	9	80	9
Gulf Islands	25	12	50	910	15
Nanaimo	70	28	91	782	9
Victoria	67	2	15	25	1
Okanagan Lake	112	27	106	9,379	56
Thompson River	45	10	144	5,556	38
Arrow Lakes	32	13	54	2,141	40
Kootenay Lake	110	30	146	10,823	74
Totals	1,315	309	1,920	65,671	34

Since the call for crop reports was issued about 100 names have been added to the list, but it has been deemed advisable to assume that, as these were probably beginners, they got no crop at all, and thus avoid unduly inflating the total of the crop.

In 1915 the bee-keepers of the Province reported an average of 7.4 hives to the apiary; in 1916 it fell to 5.22. These figures give us some data by which to measure the average death-rate among bees last winter. If we assume an increase of only 10 per cent. in the number of colonies in the summer of 1915, the death-rate works out at 40 per cent., a very serious immediate loss of at least \$20,000, and a prospective crop loss during the season of 1916 of as big a sum to our bee-keeping industry; but to make matters worse the colonies that survived were very weak. When we consider the cold, wet weather of spring and summer, the wonder is that a crop of any kind was secured. That the bees were so generally got into good condition for what little opportunity there was reflects great credit on the bee-keepers themselves, and the writer feels certain that in later years the majority of them will look upon the season of 1916 as a blessing in disguise, as it caused many a one who had followed apiculture in a rather haphazard way to read, study, and think, laying a foundation for solid achievements in the years to come.

That decided progress in total honey production was made in face of a heavy loss of stock and despite a most unfavourable season is an achievement of which the members of any industry have right to feel proud. It is a real proof of staying power, the heritage of our race.

It is improbable that such a winter and spring will ever again be experienced by the present bee-keepers of British Columbia; nevertheless, there are lessons to be learned, and now is the time to point the moral. It has been the habit of the bee-keepers in this Province to assume that it was unnecessary to provide any form of protection for the bees in winter, probably arguing that even if the colonies were weak in spring they had plenty of time to build up for the honey-flow. There was much of truth in the theory in many regions where the harvest did not come until the end of June, say from alsike clover, snowberry-bush, and from fireweed later in the season. It was emphatically not true in many regions where maples formed the possible source of nectar, and this harvest of delicious honey in April was annually lost because the colonies were too weak to take advantage of the opportunity. Every bee-keeper of any prominence the world over insists that bees can never be too strong

in numbers at any season of the year, that the real ear-mark of the first-class bee-keeper is the fact that his colonies are strong from the first day of the year to the last, and that they always have plenty of stores in reserve according to the season.

ALL BEES SHOULD BE PROTECTED.

For several years Dr. Phillips, Apiculturist for the Government of the United States, has conducted a very exhaustive series of experiments on the wintering of bees, and his conclusions are that it pays, and pays big, to protect bees in all regions where the temperature falls below 47 degrees for a few days at a time. Applying his principles to British Columbia, we at once see that all bees should be protected every winter.

To give concrete examples, our oldest successful bee-keeper on the Lower Fraser has for over twenty years put his bees in protecting-cases for the winter, and nothing could tempt him to change his procedure. The writer's bees last winter were packed at the end of August and were absolutely neglected for six months, being completely hidden under snow for several weeks. The first spring examination was made in the presence of four other bee-keepers, all of whom agreed that the colonies were far too strong. As a matter of fact they were not, but their condition enabled increase to be made from fourteen to thirty-six in the face of a poor season. Many other instances of a like nature could be given, but enough has been said.

That we have a good honey region is proved even by the figures of our past two seasons, the worst the Province has seen in over twenty years, but to the writer's mind we have yet much to learn about how to get the biggest results with the least possible expenditure of money and labour. We have a region peculiar to itself, so many of the principles applicable east of the Rocky Mountains do not fit in with us. The wintering problem has interested the writer for eight years, and he feels that winter cases solve it, but at the cost of too much work and money. Feeling that there is an easier way possible, he has prepared a much simpler and less expensive arrangement which will be tried out in his own bee-yard in the season of 1917.

During the past six summers the writer has closely watched the behaviour of bees on white clover in the Lower Fraser region and he has been unable to find proof of a honey-flow from this source. On the other hand, alsike clover appears to yield nectar freely. This point is well worth the consideration of the bee-keepers of the district.

FOUL-BROOD SITUATION IMPROVING.

The foul-brood situation is decidedly improving. In his district the writer found twenty-two affected apiaries in 1914, eighteen in 1915, and ten in 1916. The diseased colonies numbered fifty-four in 1914, forty-nine in 1915, and eighteen in 1916. A very close watch is being kept on all affected apiaries, for the experience of our Inspectors is that the disease may be dormant in a hive for at least three years before showing itself.

A new outbreak is reported at Vernon. As no bees have been brought into the district for years, we are compelled to assume that the bees of the affected apiaries have had access to honey brought into the Province from a foul-brood area. It is simply astounding how careless even bee-keepers are in handling imported honey. The writer often finds a bee-keeper feeding extracted foreign honey to his bees, and this past summer he found one using old sections that bore the name of a bee-keeper whose apiary is located in a decidedly foul-brood region. A neighbour had thrown them out and he thought he would economize by using them.

One good honey season will probably put an end to all these risks, for the crop will undoubtedly balance our present consumption. May it be soon.

Through the efforts of Mr. Williams Hugh, Victoria, there was organized early in the year the Bee-keepers' Association of British Columbia, and already one-tenth of all the bee-keepers in the Province are on its roll of membership. It has made an excellent beginning and is doing much to standardize hives, packages, and methods. At the Vancouver Exhibition in August its members had on display fully

2 tons of honey, both section and extracted, hives, extractors, and other objects of interest to bee-keepers. It was by far the largest and finest display ever made in the history of the Province, and reflects great credit upon the officers of the association, especially the Secretary, Mr. Williams Hugh, for it was largely due to his untiring efforts and enthusiasm that the pronounced success was due.

Any bee-keeper desirous of joining the association should send \$1 to Mr. W. Hugh, 316 Beckley Avenue, Victoria.

During the past few years there has grown up south of the International Boundary-line quite a business in selling bees in pound packages. Many of our bee-keepers in 1916 endeavoured to repopulate their empty hives by investing in such packages, and fully 100 of them came under the notice of the writer. He found that fully 50 per cent. of those imported died on the journey. This was especially true where the trip took longer than three days. Some of the bee-keepers in the Dry Belt, where the season was rather favourable, speak enthusiastically over the results of their venture, but in the Wet Belt the question of their success is rather problematical.

ORDERING SUPPLIES FOR 1917.

The demand for supplies in 1914 and 1915 simply swamped the dealers in the height of the swarming season, even though they had made preparations both times for increased business, but when the severity of the past winter developed they proceeded with great caution. It is as well that they did so, for the problem with most bee-keepers was how best to populate their empty hives, and so the demand for new supplies was very small. At present the stock in hand is low; hence those who intend to make increase in 1917 will find it advisable to place their orders early to ensure their supplies being on hand not later than the end of April.

Very excellent hives are now being made in the Province. Any one desirous of learning the names of manufacturers, also of dealers in bee supplies, will be furnished them on application to the Department of Agriculture, Victoria.

BEE LITERATURE.

A.B.C. and X.Y.Z. of Bee Culture. By A. I. Root Co. Price \$1.50. (Published by W. Briggs, Toronto.)

How to Keep Bees. By A. B. Comstock. Price \$1. (Published by W. Briggs, Toronto.)

Monthly. Gleanings in Bee Culture. By A. I. Root Co., Medina, Ohio.

Monthly. American Bee Journal. C. P. Dadant, Hamilton, Ill.

Monthly. Bee-keepers' Review. E. D. Townsend, North Star, Mich.

ISSUED BY DEPARTMENT OF AGRICULTURE, VICTORIA, B.C.

Bulletin No. 30 (2nd Edition). Guide to Bee-keeping.

Bulletin No. 42. Apiculture in British Columbia.

Circular No. 7. Honey Production in British Columbia, 1913-14.

Circular No. 9. Honey Production in British Columbia, 1915.

ISSUED BY DEPARTMENT OF AGRICULTURE, OTTAWA.

Bee-keeping in Canada. By F. W. L. Shaden.

Bees, Facts About. By F. W. L. Shaden.

ISSUED BY DEPARTMENT OF AGRICULTURE, WINNIPEG.

Bulletin No. 18. Bee-keeping in Manitoba.

VICTORIA, B.C.:

Printed by WILLIAM H. COLLIN, Printer to the King's Most Excellent Majesty.
1917.



